

AMENDMENTS TO THE CLAIMS

Claims 1-180 were pending at the time of the Office Action.

Claims 9, 19, 37, 84, 85, 107, 108, 154, 179, and 180 are hereby amended. Claims 181 – 184 have been added. Claims 1-184 remain pending.

1. (Previously Presented) A method comprising:
creating a plurality of first-administered content indexes for a first set of motes;
aggregating the plurality of first-administered content indexes of the first set of motes into an aggregated content index using a gateway mote included within the first set of motes;
creating one or more second-administered content indexes for a second set of motes;
obtaining at least a part of the second-administered content indexes of the second set of motes; and
creating a federated index from the aggregated content index aggregated by the gateway mote and at least a part of the one or more second-administered content indexes.
2. (Original) The method of claim 1, wherein said creating one or more first-administered content indexes for a first set of motes further comprises:
aggregating at least a part of one or more mote-addressed content indexes from the first set of motes.
3. (Original) The method of claim 2, wherein said aggregating at least a part of one or more mote-addressed content indexes from the first set of motes further comprises:
receiving at least a part of one or more mote-addressed indexes of the first set of motes.
4. (Original) The method of claim 2, wherein said aggregating at least a part of one or more mote-addressed content indexes from the first set of motes further comprises:
creating one or more multi-mote content indexes of the first set of motes.
5. (Original) The method of claim 4, wherein said creating one or more multi-mote content indexes of the first set of motes further comprises:

obtaining a listing of motes appropriate to at least one of the one or more multi-mote content indexes.

6. (Original) The method of claim 4, wherein said creating one or more multi-mote content indexes of the first set of motes further comprises:

obtaining a listing of motes appropriate to at least one of the one or more multi-mote content indexes from a multi-mote registry.

7. (Original) The method of claim 4, wherein said creating one or more multi-mote content indexes of the first set of motes further comprises:

obtaining a pre-loaded listing of motes appropriate to at least one of the one or more multi-mote content indexes.

8. (Previously Presented) The method of claim 4, wherein said creating one or more multi-mote content indexes of the first set of motes further comprises:

obtaining a listing of motes appropriate to at least one of the one or more multi-mote content indexes from one or more motes to be included in the listing.

9. (Currently Amended) The method of claim 4, wherein said creating one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index ~~or~~ and a mote-addressed control index from a reporting entity at a mote of the first set of motes.

10. (Original) The method of claim 4, wherein said creating one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of at least one of a mote-addressed routing/spatial index from a reporting entity at a mote of the first set of motes.

11. (Original) The method of claim 2, wherein said aggregating at least a part of one or more mote-addressed content indexes from the first set of motes further comprises:

receiving at least a part of one or more multi-mote content indexes of the first set of motes.

12. (Original) The method of claim 11, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from at least one aggregation of one or more first-administered indexes.

13. (Original) The method of claim 11, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from at least one aggregation of one or more first-administered indexes.

14. (Original) The method of claim 11, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a multi-mote reporting entity at a mote of the first set of motes.

15. (Original) The method of claim 11, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from a multi-mote reporting entity at a mote of the first set of motes.

16. (Original) The method of claim 2, wherein said aggregating at least a part of one or more mote-addressed content indexes from the first set of motes further comprises:

creating an aggregate of at least a part of one or more multi-mote content indexes of the first set of motes.

17. (Original) The method of claim 16, wherein said creating an aggregate of at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

aggregating at least a part of at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index of a multi-mote content index.

18. (Original) The method of claim 16, wherein said creating an aggregate of at least a part of one or more multi-mote content indexes of the first set of motes further comprises:
aggregating at least a part of a mote-addressed routing/spatial index of a multi-mote content index.

19. (Currently Amended) The method of claim 2, wherein said aggregating at least a part of one or more mote-addressed content indexes from the first set of motes further comprises:
migrating a multi-mote index creation agent to a-one mote of the first set of motes from another mote of the first set of motes;
installing a multi-mote index creation agent at the other mote; and
receiving at least a part of one or more mote-addressed content indexes with the installed multi-mote index creation agent.

20. (Previously Presented) The method of claim 1, wherein said aggregating the plurality of first-administered content indexes of the first set of motes into an aggregated content index using a gateway mote included within the first set of motes further comprises:
receiving at least a part of one or more multi-mote content indexes of the first set of motes.

21. (Original) The method of claim 20, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:
receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from at least one aggregation of one or more first-administered indexes.

22. (Original) The method of claim 20, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:
receiving at least a part of a mote-addressed routing/spatial index from at least one aggregation of one or more first-administered indexes.

23. (Original) The method of claim 20, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a multi-mote reporting entity at a mote of the first set of motes.

24. (Original) The method of claim 20, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from a multi-mote reporting entity at a mote of the first set of motes.

25. (Original) The method of claim 1, wherein said creating one or more first-administered content indexes for a first set of motes further comprises:

determining at least one of a sensing function or a control function at a mote; and
creating one or more mote-addressed content indexes in response to said determining.

26. (Original) The method of claim 25, wherein said determining at least one of a sensing function or a control function at a mote further comprises:

accessing at least one device entity registry.

27. (Original) The method of claim 25, wherein said determining at least one of a sensing function or a control function at a mote further comprises:

communicating with at least one device-associated entity.

28. (Original) The method of claim 27, wherein said communicating with at least one device-associated entity further comprises:

communicating with at least one of a light device entity, an electrical device entity, a pressure device entity, a temperature device entity, a volume device entity, an inertial device entity, or an antenna entity.

29. (Original) The method of claim 27, wherein said communicating with at least one device-associated entity further comprises:

accessing at least one device identifier of a mote-addressed content index.

30. (Original) The method of claim 25, wherein said determining at least one of a sensing function or a control function at a mote further comprises:

communicating with at least one device entity using a common application protocol.

31. (Original) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

creating at least one extensible index.

32. (Original) The method of claim 31, wherein said creating at least one extensible index further comprises:

creating the at least one extensible index in response to a type of content indexed.

33. (Original) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

creating at least one of a mote-addressed sensing index or a mote-addressed control index.

34. (Original) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

creating at least one of a mote-addressed routing/spatial index.

35. (Original) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

inserting at least one device identifier in the one or more mote-addressed content indexes.

36. (Previously Presented) The method of claim 1, wherein said creating one or more mote-addressed content indexes comprises:

establishing an index-creating agent at a first gateway mote of the first set of motes;

determining a mote-network address of the first gateway mote; and
associating at least a part of at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index with the mote-network address of the first gateway mote.

37. (Currently Amended) The method of claim 1, wherein said creating one or more mote-addressed content indexes comprises:

migrating an index creation agent to a first gateway mote of the first set of motes from another mote;

installing ~~an~~ the index creation agent at the first gateway mote; and

querying at least one device entity with the index creation agent.

38. (Original) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

determining a mote-network address of a mote of the first set of motes;

determining one or more types of control available from one or more devices of the mote;
and

associating the one or more types of control available from one or more devices of the mote with the mote-network address of the mote.

39. (Original) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

determining a mote-network address of a mote of the first set of motes;

determining one or more types of sensing available from one or more devices of the mote; and

associating the one or more types of sensing available from one or more devices of the mote with the mote-network address of the mote.

40. (Original) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

determining a mote-network address of a mote of the first set of motes;

determining one or more types of spatial information related to devices of or proximate to the mote; and

associating the one or more types of spatial information related to devices of or proximate to the mote with the mote-network address of the mote.

41. (Original) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

determining a mote-network address of a mote of the first set of motes;

determining one or more types of absolute or relative spatial information of other motes proximate to the mote; and

associating the one or more types of absolute or relative spatial information of other motes proximate to the mote with the mote-network address of the mote.

42. (Original) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

associating one or more mote-appropriate routing addresses with the one or more mote-addressed content indexes.

43. (Original) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

associating one or more mote-appropriate routing addresses with at least one directly mote-addressed content index.

44. (Original) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

associating one or more mote-appropriate routing addresses with at least one indirectly mote-addressed content index.

45. (Previously Presented) The method of claim 25, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

selecting from one or more predetermined protocols.

46. (Previously Presented) The method of claim 45, wherein said selecting from one or more predetermined protocols further comprises:
publishing at least a part of an identifier of the selected predetermined protocol.

47. (Previously Presented) The method of claim 45, wherein said selecting from one or more predetermined protocols further comprises:
encryption utilizing at least one of a private and a public key.

48. (Previously Presented) The method of claim 1, wherein said aggregating the plurality of first-administered content indexes of the first set of motes into an aggregated content index using a gateway mote included within the first set of motes further comprises:
receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a reporting entity at a mote of the first set of motes.

49. (Previously Presented) The method of claim 1, wherein said aggregating the plurality of first-administered content indexes of the first set of motes into an aggregated content index using a gateway mote included within the first set of motes further comprises:
receiving at least a part of a mote-addressed routing/spatial index from a reporting entity at a mote of the first set of motes.

50. (Original) The method of claim 1, wherein said creating one or more second-administered content indexes for a second set of motes further comprises:
aggregating at least a part of one or more mote-addressed content indexes from the second set of motes.

51. (Original) The method of claim 50, wherein said aggregating at least a part of one or more mote-addressed content indexes from the second set of motes further comprises:
receiving at least a part of one or more mote-addressed indexes of the second set of motes.

52. (Original) The method of claim 50, wherein said aggregating at least a part of one or more mote-addressed content indexes from the second set of motes further comprises:
creating one or more multi-mote content indexes of the second set of motes.

53. (Original) The method of claim 52, wherein said creating one or more multi-mote content indexes of the second set of motes further comprises:
obtaining a listing of motes appropriate to at least one of the one or more multi-mote content indexes.

54. (Original) The method of claim 52, wherein said creating one or more multi-mote content indexes of the second set of motes further comprises:
obtaining a listing of motes appropriate to at least one of the one or more multi-mote content indexes from a multi-mote registry.

55. (Original) The method of claim 52, wherein said creating one or more multi-mote content indexes of the second set of motes further comprises:
obtaining a pre-loaded listing of motes appropriate to at least one of the one or more multi-mote content indexes.

56. (Previously Presented) The method of claim 52, wherein said creating one or more multi-mote content indexes of the second set of motes further comprises:
obtaining a listing of motes appropriate to at least one of the one or more multi-mote content indexes from one or more motes to be included in the listing.

57. (Original) The method of claim 52, wherein said creating one or more multi-mote content indexes of the second set of motes further comprises:
receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a reporting entity at a mote of the second set of motes.

58. (Original) The method of claim 52, wherein said creating one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of at least one of a mote-addressed routing/spatial index from a reporting entity at a mote of the second set of motes.

59. (Original) The method of claim 50, wherein said aggregating at least a part of one or more mote-addressed content indexes from the second set of motes further comprises:

receiving at least a part of one or more multi-mote content indexes of the second set of motes,

60. (Original) The method of claim 59, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from at least one aggregation of one or more second-administered indexes.

61. (Original) The method of claim 59, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from at least one aggregation of one or more second-administered indexes.

62. (Original) The method of claim 59, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a multi-mote reporting entity at a mote of the second set of motes.

63. (Original) The method of claim 59, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from a multi-mote reporting entity at a mote of the second set of motes.

64. (Original) The method of claim 50, wherein said aggregating at least a part of one or more mote-addressed content indexes from the second set of motes further comprises:

creating an aggregate of at least a part of one or more multi-mote content indexes of the second set of motes.

65. (Original) The method of claim 64, wherein said creating an aggregate of at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

aggregating at least a part of at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index of a multi-mote content index.

66. (Original) The method of claim 64, wherein said creating an aggregate of at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

aggregating at least a part of a mote-addressed routing/spatial index of a multi-mote content index.

67. (Previously Presented) The method of claim 50, wherein said aggregating at least a part of one or more mote-addressed content indexes from the second set of motes further comprises:

migrating to a mote of the second set of motes;

installing a multi-mote index creation agent at the mote; and

receiving at least a part of one or more mote-addressed content indexes with the multi-mote index creation agent.

68. (Original) The method of claim 1, wherein said obtaining at least a part of the second-administered content indexes of the second set of motes further comprises:

receiving at least a part of one or more multi-mote content indexes of the second set of motes.

69. (Original) The method of claim 68, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from at least one aggregation of one or more second-administered indexes.

70. (Original) The method of claim 68, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from at least one aggregation of one or more second-administered indexes.

71. (Original) The method of claim 68, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a multi-mote reporting entity at a mote of the second set of motes.

72. (Original) The method of claim 68, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from a multi-mote reporting entity at a mote of the second set of motes.

73. (Original) The method of claim 1, wherein said creating one or more second-administered content indexes for a second set of motes further comprises:

determining at least one of a sensing function or a control function at a mote; and
creating one or more mote-addressed content indexes in response to said determining.

74. (Original) The method of claim 73, wherein said determining at least one of a sensing function or a control function at a mote further comprises:

accessing at least one device entity registry.

75. (Original) The method of claim 73, wherein said determining at least one of a sensing function or a control function at a mote further comprises:

communicating with at least one device-associated entity.

76. (Original) The method of claim 75, wherein said communicating with at least one device-associated entity further comprises:

communicating with at least one of a light device entity, an electrical device entity, a pressure device entity, a temperature device entity, a volume device entity, an inertial device entity, or an antenna entity.

77. (Original) The method of claim 75, wherein said communicating with at least one device-associated entity further comprises:

accessing at least one device identifier of a mote-addressed content index.

78. (Original) The method of claim 73, wherein said determining at least one of a sensing function or a control function at a mote further comprises:

communicating with at least one device entity using a common application protocol.

79. (Original) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

creating at least one extensible index.

80. (Original) The method of claim 79, wherein said creating at least one extensible index further comprises:

creating the at least one extensible index in response to a type of content indexed.

81. (Original) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

creating at least one of a mote-addressed sensing index or a mote-addressed control index.

82. (Original) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

creating at least one of a mote-addressed routing/spatial index.

83. (Original) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:
inserting at least one device identifier in the one or more mote-addressed content indexes.

84. (Currently Amended) The method of claim 36, wherein said creating one or more mote-addressed content indexes further comprises:
establishing an index-creating agent at a second gateway mote of the second set of motes;
determining a mote-network address of the second gateway mote; and
associating at least a part of at least ~~one~~two of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index with the mote-network address of the second gateway mote.

85. (Currently Amended) The method of claim 37, wherein said creating one or more mote-addressed content indexes further comprises:
migrating an index creation agent to a second gateway mote of the second set of motes;
installing ~~an~~the index creation agent at the second gateway mote; and
querying at least one device entity with the index creation agent.

86. (Original) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:
determining a mote-network address of a mote of the second set of motes;
determining one or more types of control available from one or more devices of the mote;
and
associating the one or more types of control available from one or more devices of the mote with the mote-network address of the mote.

87. (Original) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:
determining a mote-network address of a mote of the second set of motes;

determining one or more types of sensing available from one or more devices of the mote; and

associating the one or more types of sensing available from one or more devices of the mote with the mote-network address of the mote.

88. (Original) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

determining a mote-network address of a mote of the second set of motes;

determining one or more types of spatial information related to devices of or proximate to the mote; and

associating the one or more types of spatial information related to devices of or proximate to the mote with the mote-network address of the mote.

89. (Original) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

determining a mote-network address of a mote of the second set of motes;

determining one or more types of absolute or relative spatial information of other motes proximate to the mote; and

associating the one or more types of absolute or relative spatial information of other motes proximate to the mote with the mote-network address of the mote.

90. (Original) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

associating one or more mote-appropriate routing addresses with the one or more mote-addressed content indexes.

91. (Original) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

associating one or more mote-appropriate routing addresses with at least one directly mote-addressed content index.

92. (Original) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

associating one or more mote-appropriate routing addresses with at least one indirectly mote-addressed content index.

93. (Currently Amended) The method of claim 73, wherein said creating one or more mote-addressed content indexes in response to said determining further comprises:

selecting from one or more predetermined protocols.

94. (Previously Presented) The method of claim 93, wherein said selecting from one or more predetermined protocols further comprises:

publishing at least a part of an identifier of the selected established standard or protocol.

95. (Previously Presented) The method of claim 93, wherein said predetermined protocols further comprises:

encryption utilizing at least one of a private and a public key.

96. (Original) The method of claim 1, wherein said obtaining at least a part of the second-administered content indexes of the second set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a reporting entity at a mote of the second set of motes.

97. (Original) The method of claim 1, wherein said obtaining at least a part of the second-administered content indexes of the second set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from a reporting entity at a mote of the second set of motes.

98. (Original) The method of claim 1, wherein said creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

creating the federated index from at least a part of one or more multi-mote content indexes of the first set of motes.

99. (Original) The method of claim 1, wherein said creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

creating the federated index from at least a part of at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index of the first set of motes.

100. (Original) The method of claim 1, wherein said creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

creating the federated index from at least a part of one or more multi-mote content indexes of the second set of motes.

101. (Original) The method of claim 1, wherein said creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

creating the federated index from at least a part of at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index of the second set of motes.

102. (Original) The method of claim 1, wherein said creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

generating the federated index to have one or more entries noting one or more respective administrative domains of one or more content index entries.

103. (Original) The method of claim 1, wherein said creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

generating the federated index to have access information to one or more content indexes for an administered content index.

104. (Original) The method of claim 1, wherein said creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

generating the federated index to have information pertaining to a currency of at least one entry of an administered content index.

105. (Original) The method of claim 1, wherein said creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

generating the federated index to have information pertaining to an expiration of at least one entry of an administered content index.

106. (Original) The method of claim 1, wherein said creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

generating the federated index to have metadata pertaining to an administrative domain, wherein the metadata includes at least one of an ownership indicator, an access right indicator, an index refresh indicator, or a predefined policy indicator.

107. (Currently Amended) The method of claim 1, wherein said creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

generating the federated index to have an administrative domain-specific query string generated for or supplied by ~~an~~ a first administrative domain to produce an updated content index for ~~that~~ the first domain; and

generating the federated index to have an administrative domain-specific query string generated for or supplied by a second administrative domain to produce an updated content index for the second domain, wherein the first domain is different than the second domain.

108. (Currently Amended) A system comprising:

means for creating a plurality of first-administered content indexes for a first set of motes;

means for aggregating the plurality of first-administered content indexes of the first set of motes into an aggregated content index using a gateway mote included within the first set of motes;

means for creating one or more second-administered content indexes for a second set of motes;

means for obtaining at least a part of the second-administered content indexes of the second set of motes; and

means for creating a federated index from the aggregated content index aggregated by the gateway mote and at least a part of the one or more second-administered content indexes, wherein at least one of the means for creating or the means for obtaining includes at least one of hardware, firmware, or a processor configured to perform particular functions including at least one of obtaining or creating~~at least one of electrical circuitry for creating or electrical circuitry for obtaining.~~

109. (Original) The system of claim 108, wherein said means for creating one or more first-administered content indexes for a first set of motes further comprises:

means for aggregating at least a part of one or more mote-addressed content indexes from the first set of motes.

110. (Previously Presented) The system of claim 108, wherein said means for aggregating the plurality of first-administered content indexes of the first set of motes into an aggregated content index using a gateway mote included within the first set of motes further comprises:

means for receiving at least a part of one or more multi-mote content indexes of the first set of motes.

111. (Original) The system of claim 108, wherein said means for creating one or more first-administered content indexes for a first set of motes further comprises:

means for determining at least one of a sensing function or a control function at a mote;
and

means for creating one or more mote-addressed content indexes in response to said means for determining.

112. (Previously Presented) The system of claim 108, wherein said means for aggregating the plurality of first-administered content indexes of the first set of motes into an aggregated content index using a gateway mote included within the first set of motes further comprises:

means for receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a reporting entity at a mote of the first set of motes.

113. (Previously Presented) The system of claim 108, wherein said means for aggregating the plurality of first-administered content indexes of the first set of motes into an aggregated content index using a gateway mote included within the first set of motes further comprises:

means for receiving at least a part of a mote-addressed routing/spatial index from a reporting entity at a mote of the first set of motes.

114. (Original) The system of claim 108, wherein said means for creating one or more second-administered content indexes for a second set of motes further comprises:

means for aggregating at least a part of one or more mote-addressed content indexes from the second set of motes.

115. (Original) The system of claim 108, wherein said means for obtaining at least a part of the second-administered content indexes of the second set of motes further comprises:

means for receiving at least a part of one or more multi-mote content indexes of the second set of motes.

116. (Original) The system of claim 108, wherein said means for creating one or more second-administered content indexes for a second set of motes further comprises:

means for determining at least one of a sensing function or a control function at a mote; and means for creating one or more mote-addressed content indexes in response to said means for determining.

117. (Original) The system of claim 108, wherein said means for obtaining at least a part of the second-administered content indexes of the second set of motes further comprises:

means for receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a reporting entity at a mote of the second set of motes.

118. (Original) The system of claim 108, wherein said means for obtaining at least a part of the second-administered content indexes of the second set of motes further comprises:

means for receiving at least a part of a mote-addressed routing/spatial index from a reporting entity at a mote of the second set of motes.

119. (Original) The system of claim 108, wherein said means for creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

means for creating the federated index from at least a part of one or more multi-mote content indexes of the first set of motes.

120. (Original) The system of claim 108, wherein said means for creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

means for creating the federated index from at least a part of at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index of the first set of motes.

121. (Original) The system of claim 108, wherein said means for creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

means for creating the federated index from at least a part of one or more multi-mote content indexes of the second set of motes.

122. (Original) The system of claim 108, wherein said means for creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

means for creating the federated index from at least a part of at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index of the second set of motes.

123. (Original) The system of claim 108, wherein said means for creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

means for generating the federated index to have one or more entries noting one or more respective administrative domains of one or more content index entries.

124. (Original) The system of claim 108, wherein said means for creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

means for generating the federated index to have access information to one or more content indexes for an administered content index.

125. (Original) The system of claim 108, wherein said means for creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

means for generating the federated index to have information pertaining to a currency of at least one entry of an administered content index.

126. (Original) The system of claim 108, wherein said means for creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

means for generating the federated index to have information pertaining to an expiration of at least one entry of an administered content index.

127. (Original) The system of claim 108, wherein said means for creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

means for generating the federated index to have metadata pertaining to an administrative domain, wherein the metadata includes at least one of an ownership indicator, an access right indicator, an index refresh indicator, or a predefined policy indicator.

128. (Original) The system of claim 108, wherein said means for creating a federated index from at least a part of the one or more first-administered content indexes and at least a part of the one or more second-administered content indexes further comprises:

means for generating the federated index to have an administrative domain-specific query string generated for or supplied by an administrative domain to produce an updated content index for that domain.

129. (Previously Presented) A method comprising:
aggregating a plurality of first-administered content indexes from a first set of nodes into an aggregated content index using an aggregating node from among the first set of nodes;

obtaining at least a part of a second-administered content index from a second set of motes; and

creating a federated index from the aggregated content index from the aggregating mote and at least a part of the second-administered content index.

130. (Original) The method of claim 129, wherein said obtaining at least a part of a first-administered content index from a first set of motes further comprises:

receiving at least a part of one or more multi-mote content indexes of the first set of motes.

131. (Original) The method of claim 130, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from at least one aggregation of one or more first-administered indexes.

132. (Original) The method of claim 130, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from at least one aggregation of one or more first-administered indexes.

133. (Original) The method of claim 130, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a multi-mote reporting entity at a mote of the first set of motes.

134. (Original) The method of claim 130, wherein said receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from a multi-mote reporting entity at a mote of the first set of motes.

135. (Original) The method of claim 129, wherein said obtaining at least a part of a first-administered content index from a first set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a reporting entity at a mote of the first set of motes.

136. (Original) The method of claim 129, wherein said obtaining at least a part of a first-administered content index from a first set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from a reporting entity at a mote of the first set of motes.

137. (Original) The method of claim 129, wherein said obtaining at least a part of a second-administered content index from a second set of motes further comprises:

receiving at least a part of one or more multi-mote content indexes of the second set of motes.

138. (Original) The method of claim 137, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from at least one aggregation of one or more second-administered indexes.

139. (Original) The method of claim 137, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from at least one aggregation of one or more second-administered indexes.

140. (Original) The method of claim 137, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a multi-mote reporting entity at a mote of the second set of motes.

141. (Original) The method of claim 137, wherein said receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from a multi-mote reporting entity at a mote of the second set of motes.

142. (Original) The method of claim 129, wherein said obtaining at least a part of a second-administered content index from a second set of motes further comprises:

receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a reporting entity at a mote of the second set of motes.

143. (Original) The method of claim 129, wherein said obtaining at least a part of a second-administered content index from a second set of motes further comprises:

receiving at least a part of a mote-addressed routing/spatial index from a reporting entity at a mote of the second set of motes.

144. (Original) The method of claim 129, wherein said creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

creating the federated index from at least a part of one or more multi-mote content indexes of the first set of motes.

145. (Original) The method of claim 129, wherein said creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

creating the federated index from at least a part of at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index of the first set of motes.

146. (Original) The method of claim 129, wherein said creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

creating the federated index from at least a part of one or more multi-mote content indexes of the second set of motes.

147. (Original) The method of claim 129, wherein said creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

creating the federated index from at least a part of at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index of the second set of motes.

148. (Original) The method of claim 129, wherein said creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

generating the federated index to have one or more entries noting one or more respective administrative domains of one or more content index entries.

149. (Original) The method of claim 129, wherein said creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

generating the federated index to have access information to one or more content indexes for an administered content index.

150. (Original) The method of claim 129, wherein said creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

generating the federated index to have information pertaining to a currency of at least one entry of an administered content index.

151. (Original) The method of claim 129, wherein said creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

generating the federated index to have information pertaining to an expiration of at least one entry of an administered content index.

152. (Original) The method of claim 129, wherein said creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

generating the federated index to have metadata pertaining to an administrative domain, wherein the metadata includes at least one of an ownership indicator, an access right indicator, an index refresh indicator, or a predefined policy indicator.

153. (Original) The method of claim 129, wherein said creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

generating the federated index to have an administrative domain-specific query string generated for or supplied by an administrative domain to produce an updated content index for that domain.

154. (Currently Amended) A system comprising:

means for aggregating a plurality of a first-administered content index from a first set of motes into an aggregated content index using an aggregating mote from among the first set of motes;

means for receiving at least a part of a second-administered content index from a second set of motes; and

means for creating a federated index from the aggregated content index from the aggregating mote and at least a part of the second-administered content index, wherein at least one of the means for obtaining or the means for creating includes at least one of hardware, firmware, or a processor configured to perform particular functions including at least one of obtaining or creating electrical circuitry for obtaining or electrical circuitry for creating.

155. (Original) The system of claim 154, wherein said means for obtaining at least a part of a first-administered content index from a first set of motes further comprises:

means for receiving at least a part of one or more multi-mote content indexes of the first set of motes.

156. (Original) The system of claim 155, wherein said means for receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

means for receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from at least one aggregation of one or more first-administered indexes.

157. (Original) The system of claim 155, wherein said means for receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

means for receiving at least a part of a mote-addressed routing/spatial index from at least one aggregation of one or more first-administered indexes.

158. (Original) The system of claim 155, wherein said means for receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

means for receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a multi-mote reporting entity at a mote of the first set of motes.

159. (Original) The system of claim 155, wherein said means for receiving at least a part of one or more multi-mote content indexes of the first set of motes further comprises:

means for receiving at least a part of a mote-addressed routing/spatial index from a multi-mote reporting entity at a mote of the first set of motes.

160. (Original) The system of claim 154, wherein said means for obtaining at least a part of a first-administered content index from a first set of motes further comprises:

means for receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a reporting entity at a mote of the first set of motes.

161. (Original) The system of claim 154, wherein said means for obtaining at least a part of a first-administered content index from a first set of motes further comprises:

means for receiving at least a part of a mote-addressed routing/spatial index from a reporting entity at a mote of the first set of motes.

162. (Original) The system of claim 154, wherein said means for obtaining at least a part of a second-administered content index from a second set of motes further comprises:

means for receiving at least a part of one or more multi-mote content indexes of the second set of motes.

163. (Original) The system of claim 162, wherein said means for receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

means for receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from at least one aggregation of one or more second-administered indexes.

164. (Original) The system of claim 162, wherein said means for receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

means for receiving at least a part of a mote-addressed routing/spatial index from at least one aggregation of one or more second-administered indexes.

165. (Original) The system of claim 162, wherein said means for receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

means for receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a multi-mote reporting entity at a mote of the second set of motes.

166. (Original) The system of claim 162, wherein said means for receiving at least a part of one or more multi-mote content indexes of the second set of motes further comprises:

means for receiving at least a part of a mote-addressed routing/spatial index from a multi-mote reporting entity at a mote of the second set of motes.

167. (Original) The system of claim 154, wherein said means for obtaining at least a part of a second-administered content index from a second set of motes further comprises:

means for receiving at least a part of at least one of a mote-addressed sensing index or a mote-addressed control index from a reporting entity at a mote of the second set of motes.

168. (Original) The system of claim 154, wherein said means for obtaining at least a part of a second-administered content index from a second set of motes further comprises:

means for receiving at least a part of a mote-addressed routing/spatial index from a reporting entity at a mote of the second set of motes.

169. (Original) The system of claim 154, wherein said means for creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

means for creating the federated index from at least a part of one or more multi-mote content indexes of the first set of motes.

170. (Original) The system of claim 154, wherein said means for creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

means for creating the federated index from at least a part of at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index of the first set of motes.

171. (Original) The system of claim 154, wherein said means for creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

means for creating the federated index from at least a part of one or more multi-mote content indexes of the second set of motes.

172. (Original) The system of claim 154, wherein said means for creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

means for creating the federated index from at least a part of at least one of a mote-addressed sensing index, a mote-addressed control index, or a mote-addressed routing/spatial index of the second set of motes.

173. (Original) The system of claim 154, wherein said means for creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

means for generating the federated index to have one or more entries noting one or more respective administrative domains of one or more content index entries.

174. (Original) The system of claim 154, wherein said means for creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

means for generating the federated index to have access information to one or more content indexes for an administered content index.

175. (Original) The system of claim 154, wherein said means for creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

means for generating the federated index to have information pertaining to a currency of at least one entry of an administered content index.

176. (Original) The system of claim 154, wherein said means for creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

means for generating the federated index to have information pertaining to an expiration of at least one entry of an administered content index.

177. (Original) The system of claim 154, wherein said means for creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

means for generating the federated index to have metadata pertaining to an administrative domain, wherein the metadata includes at least one of an ownership indicator, an access right indicator, an index refresh indicator, or a predefined policy indicator.

178. (Original) The system of claim 154, wherein said means for creating a federated index from at least a part of the first-administered content index and at least a part of the second-administered content index further comprises:

means for generating the federated index to have an administrative domain-specific query string generated for or supplied by an administrative domain to produce an updated content index for that domain.

179. (Currently Amended) A system comprising:

at least one computational system having electrical circuitry and being operably coupled with a first-administered set of motes and a separately administered second-administered set of motes;

at least one gateway mote included within at least one of the first-administered set of motes or the second-administered set of motes, the at least one gateway mote including a multi-mote index creation agent configured to:

receive a plurality of content indexes from a corresponding plurality of motes of the at least one of the first-administered set of motes or the second-administered set of motes, and

aggregate the plurality of content indexes into at least one aggregated index associated with the at least one of the first-administered set of motes or the second-administered set of motes, respectively; and

at least one federated index creation agent resident in the computational system, said at least one federated index creation agent configured to receive the at least one aggregated index associated with the at least one of the first-administered set of motes, and to create a federated

index that includes the at least one aggregated index and an index from the separately administered second-administered set of motes.

180. (Currently Amended) A system comprising:

at least one computational system having electrical circuitry and being operably coupled with a first-administered set of motes and a separately administered second-administered set of motes second-administered set of motes;

at least one gateway mote included within at least one of the first-administered set of motes or the second-administered set of motes, the at least one gateway mote including a multi-mote index creation agent configured to:

receive a plurality of content indexes from a corresponding plurality of motes of the at least one of the first-administered set of motes or the second-administered set of motes, and

aggregate the plurality of content indexes into at least one aggregated index associated with the ~~at least one of the first-administered set of motes or~~ and the separately administered second-administered set of motes, respectively; and

at least one federated index resident in the computational system, said at least one at least one federated index configured to contain the at least one aggregated index.

181. (New) The method as recited in claim 1 wherein said one or more second-administered content indexes for a second set of motes being separately administered from the plurality of first-administered content indexes for a first set of motes.

182. (New) The method as recited in claim 1 wherein said one or more second-administered content indexes for a second set of motes corresponding to data relating to a second sensor type coupled with the second set of motes, the plurality of first-administered content indexes for a first set of motes corresponding to data relating to a first sensor type coupled with the first set of motes, the second sensor type being a different type from the first sensor type.

183. (New) The method as recited in claim 25 wherein determining at least one of a sensing function or a control function at a mote further comprises:

determining availability of information from a sensing device, determining a query command format of a sensing device or determining an output format of information of the sensing device.

184. (New) The method as recited in claim 87 wherein determining one or more types of control available from one or more devices of the mote comprises:

determining availability of information from a sensing device, determining a format of information obtained from the sensing device, determining a query command format of a sensing device and determining an output format of information of the sensing device.